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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,629	05/17/2006	Mitsuru Maeda	00862.103716.	9168

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EXAMINER
HOLDER, ANNER N

ART UNIT	PAPER NUMBER
2483	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/579,629	MAEDA, MITSURU
	Examiner	Art Unit	
	ANNER HOLDER	2483	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 November 2010</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-6,13 and 16-18</u> is/are pending in the application.

    4a) Of the above claim(s) <u>7-12,14 and 15</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-6,13 and 16-18</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>17 May 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1.   Applicant's election without traverse of species I in the reply filed on 11/18/10 is
acknowledged.

Drawings

2.   Figure 13 should be designated by a legend such as --Prior Art-- because only
that which is old is illustrated.   See MPEP § 608.02(g).   Corrected drawings in
compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid
abandonment of the application. The replacement sheet(s) should be labeled
"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct
any portion of the drawing figures. If the changes are not accepted by the examiner, the
applicant will be notified and informed of any required corrective action in the next Office
action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

4.   Claims 16-18 are rejected under 35 U.S.C. 101 because the claimed invention is
directed to non-statutory subject matter. Claims 16-18 recite "a program" which does

not fall within one of the four statutory categories of inventions. A program is per se

software which is considered non-statutory subject matter.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in
> public use or on sale in this country, more than one year prior to the date of application for patent in
> the United States.

6.   Claims 1, 2, 6, 13, and 16-18 are rejected under 35 U.S.C. 102(b) as being

anticipated by Fukuhara et al US 6,381,275.

7.   As to claim 1, Fukuhara teaches a motion image coding apparatus [abstract; fig.

1; fig. 24; fig. 27; col. 8 lines 25-28] which codes a motion image by executing motion

compensation [fig. 1 (21); fig. 27 (21); col. 18 lines 14-18; col. 19 lines 23-27; col. 21

lines 18-19] for frame data to be coded by referring to a plurality of frame data in the

motion image, [fig, 1; fig. 24; col. 18 lines 2-26; col. 21 lines 36-52] comprising:

detecting means [fig. 1; fig. 24 (15, 123); fig. 27 (123, 15); col. 21 lines 36-41] for

detecting a motion of an imaging device; [fig. 1 (15); fig. 24 (123); fig. 27 (123, 15); col.

21 lines 36-41] a plurality of storage means for storing said plurality of frame data; [fig.

1 (9-10); fig. 24 (43, 44, 49); fig. 27 (43, 44)] selecting means for selecting, [fig. 1 (35);

fig. 24 (35); fig. 27 (35); col. 8 lines 49-57] from said plurality of storage means, [fig. 1

(35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-55; col. 11 lines 48-59; col. 19 lines 16-35;

col. 22 lines 6-14] on the basis of motion information detected by said detecting means,

[fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-61; col. 19 lines 16-35; col. 21 lines 36-52; col. 22 lines 6-14] storage means [fig. 1 (9-10); fig. 24 (43, 44, 49); fig. 27 (43, 44)] for storing reference frame data to be referred to when the frame data to be coded is coded; [fig. 1 (9-10); fig. 24 (43, 44, 49); fig. 27 (43, 44); col. 11 lines 48-67; col. 12 lines 55-67] estimating means [fig. 1 (15); fig. 24 (15); fig. 27 (15); col. 8 lines 49-57; col. 19 lines 16-35; col. 21 lines 36-41] for estimating a motion vector on the basis of the reference frame data stored in said storage means selected by said selecting means and the frame data to be coded; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-41] coding means [fig. 1 (17); fig. 24 (17); fig. 27 (17); col. 21 lines 36-52] for coding the frame data to be coded by using the motion vector estimated by said estimating means; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-52] and output means [fig. 1 (45); fig. 24 (45); fig. 27 (45); col. 8 lines 30-39; col. 18 lines 23-26] for outputting the coded data which is coded by said coding means. [fig. 1 (45); fig. 24 (45); fig. 27 (45); col. 8 lines 30-39;col. 18 lines 23-26]

8.   As to claim 2, Fukuhara teaches wherein said detecting means [fig. 1; fig. 24 (15, 123); fig. 27 (123, 15); col. 21 lines 36-41] detects the motion of said imaging device on the basis of a motion image sensed by said imaging device. [fig. 1 (15); fig. 24 (123); fig. 27 (123, 15); col. 21 lines 36-41]

9.   As to claim 6, Fukuhara teaches search range control means for controlling a motion vector search range of said estimating means on the basis of the motion image

detected by said detecting means. [col. 9 line 65 - col. 10 line 10; col. 23 line 41- col. 24 line 5]

10.   As to claim 13, Fukuhara teaches a control method of a motion image coding apparatus [abstract; fig. 1; fig. 24; fig. 27; col. 8 lines 25-28] which comprises a plurality of storage units for storing a plurality of frame data in a motion image, [fig. 1 (9-10); fig. 24 (43, 44, 49); fig. 27 (43, 44)] and codes the motion image by executing motion compensation for frame data to be coded by referring to frame data stored in the plurality of storage units, [fig. 1 (21); fig. 27 (21); col. 18 lines 14-18; col. 19 lines 23-27; col. 21 lines 18-19] comprising: a detection step of detecting a motion of an imaging device; [fig. 1 (15); fig. 24 (123); fig. 27 (123, 15); col. 21 lines 36-41] a selection step of selecting, from the plurality of storage units, fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-55; col. 11 lines 48-59; col. 19 lines 16-35; col. 22 lines 6-14] on the basis of motion information detected in the detection step, a storage unit for storing reference frame data to be referred to when the frame data to be coded is coded; [fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-61; col. 19 lines 16-35; col. 21 lines 36-52; col. 22 lines 6-14]   an estimation step of estimating a motion vector on the basis of the reference frame data stored in the storage unit selected in the selection step and the frame data to be coded; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-41] a coding step of coding the frame data to be coded by using the motion vector estimated in the estimation step; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-52] and an output step of outputting the coded data which is coded in

the coding step. [fig. 1 (45); fig. 24 (45); fig. 27 (45); col. 8 lines 30-39;col. 18 lines 23-26]

11.   As to claim 16, Fukuhara teaches a program for implementing control of a motion image coding apparatus [abstract; fig. 1; fig. 24; fig. 27; col. 8 lines 25-28] which comprises a plurality of storage units for storing a plurality of frame data in a motion image, and codes the motion image by executing motion compensation for frame data to be coded by referring to frame data stored in the plurality of storage units, [fig. 1 (21); fig. 27 (21); col. 18 lines 14-18; col. 19 lines 23-27; col. 21 lines 18-19] comprising program codes of: a detection step of detecting a motion of an imaging device; [fig. 1 (15); fig. 24 (123); fig. 27 (123, 15); col. 21 lines 36-41]   a selection step of selecting, from the plurality of storage units, fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-55; col. 11 lines 48-59; col. 19 lines 16-35; col. 22 lines 6-14]   on the basis of motion information detected in the detection step, a storage unit for storing reference frame data to be referred to when the frame data to be coded is coded; [fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-61; col. 19 lines 16-35; col. 21 lines 36-52; col. 22 lines 6-14] an estimation step of estimating a motion vector on the basis of the reference frame data stored in the storage unit selected in the selection step and the frame data to be coded; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-41] a coding step of coding the frame data to be coded by using the motion vector estimated in the estimation step; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21

lines 36-52]   and an output step of outputting the coded data which is coded in the coding step. [fig. 1 (45); fig. 24 (45); fig. 27 (45); col. 8 lines 30-39;col. 18 lines 23-26]

12.   As to claim 17, Fukuhara teaches a program for implementing control of a motion image coding apparatus [abstract; fig. 1; fig. 24; fig. 27; col. 8 lines 25-28] which comprises a plurality of storage units for storing a plurality of frame data in a motion image, [fig. 1 (9-10); fig. 24 (43, 44, 49); fig. 27 (43, 44)] and codes a motion image by executing motion compensation for frame data to be coded by referring to frame data stored in the plurality of storage units, [fig. 1 (21); fig. 27 (21); col. 18 lines 14-18; col. 19 lines 23-27; col. 21 lines 18-19] comprising program codes of: a program code of a setting step of setting an image sensing mode of an imaging device; [fig. 1 (15); fig. 24 (123); fig. 27 (123, 15); col. 21 lines 36-41] a program code of a selection step of selecting, from the plurality of storage units, fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-55; col. 11 lines 48-59; col. 19 lines 16-35; col. 22 lines 6-14] on the basis of the image sensing mode set in the setting step, a storage unit for storing reference frame data to be referred to when the frame data to be coded is coded; [fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-61; col. 19 lines 16-35; col. 21 lines 36-52; col. 22 lines 6-14] an estimation step of estimating a motion vector on the basis of the reference frame data stored in the storage unit selected in the selection step and the frame data to be coded; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-41] a coding step of coding the frame data to be coded by using the motion vector estimated in the estimation step; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19

lines 16-35; col. 21 lines 36-52] and an output step of outputting the coded data which

is coded in the coding step. [fig. 1 (45); fig. 24 (45); fig. 27 (45); col. 8 lines 30-39;col. 18

lines 23-26]

13.   As to claim 18, Fukuhara teaches a program for implementing control of a

motion image coding apparatus [abstract; fig. 1; fig. 24; fig. 27; col. 8 lines 25-28] which

comprises a storage unit for storing a motion image, [fig. 1 (9-10); fig. 24 (43, 44, 49);

fig. 27 (43, 44)] and codes the motion image by executing motion compensation for

frame data to be coded by referring to frame data stored in the storage unit, [fig. 1 (35);

fig. 24 (35); fig. 27 (35); col. 8 lines 49-61; col. 19 lines 16-35; col. 21 lines 36-52; col.

22 lines 6-14] comprising program codes of: an input step of inputting control

information which controls an imaging device; [fig. 1 (15); fig. 24 (123); fig. 27 (123, 15);

col. 21 lines 36-41] a setting step of setting the number of reference frame data to be

referred to when the frame data to be coded is coded, on the basis of motion

information of the imaging device, which is acquired on the basis of the control

information input in the input step; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11 lines

48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-41] an acquisition step of

acquiring reference frame data corresponding to the number of reference frame data set

in the setting step; [fig. 1 (35); fig. 24 (35); fig. 27 (35); col. 8 lines 49-61; col. 19 lines

16-35; col. 21 lines 36-52; col. 22 lines 6-14; storing motion vector detected] an

estimation step of estimating a motion vector on the basis of the reference frame data

acquired in the acquisition step and the frame data to be coded; [fig. 1; fig. 24; fig. 27;

col. 8 lines 49-57; col. 11 lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21

lines 36-41] a coding step of coding the frame data to be coded by using the motion

vector estimated in the estimation step; [fig. 1; fig. 24; fig. 27; col. 8 lines 49-57; col. 11

lines 48-67; col. 12 lines 55-67; col. 19 lines 16-35; col. 21 lines 36-52] and an output

step of outputting the coded data which is coded in the coding step. [fig. 1 (45); fig. 24

(45); fig. 27 (45); col. 8 lines 30-39; col. 18 lines 23-26]

Claim Rejections - 35 USC § 103

14.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

15.   Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Fukuhara et al US 6,381,275 in view of Mun et al US 5,912,565.

16.   As to claim 3, Fukuhara teaches the limitations of claim 1.

 Further Fukuhara teaches wherein said selecting means comprises control means for

controlling write/read.

 Fukuhara does not explicitly teach power supply to said plurality of storage means on

the basis of the motion information detected by said detecting means. [col. 8 lines 52-

61; col. 18 lines 8-22; col. 19 lines 16-35; col. 22 lines 6-14]

 Mun teaches power supply to said plurality of storage means on the basis of the motion

information detected by said detecting means. [abstract; col. 1 lines 6-12, 42-67; col. 2

lines 28-43; col. 4 lines 36-48]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the power supply teachings of Mun with the device of Fukuhara allowing access and operation of storage devices.

17.   As to claim 4, Fukuhara teaches the limitations of claim 1.

Further Fukuhara teaches setting means for setting an image sensing mode of said imaging device, wherein said selecting means comprises control means for controlling write/read. [col. 8 lines 52-61; col. 18 lines 8-22; col. 19 lines 16-35; col. 22 lines 6-14]

Fukuhara does not explicitly teach power supply to said plurality of storage means on the basis of the image sensing mode set by said setting means.

Mun teaches control means for controlling write/read and power supply to said plurality of storage means on the basis of the image sensing mode set by said setting means. [abstract; col. 1 lines 6-12, 42-67; col. 2 lines 28-43; col. 4 lines 36-48]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the power supply teachings of Mun with the device of Fukuhara allowing access and operation of storage devices.

18.   As to claim 5, Fukuhara teaches the limitations of claim 3.

Fukuhara does not explicitly teach wherein said control means stops power supply to storage means not selected by said selecting means. [col. 8 lines 52-61; col. 18 lines 8-22; col. 19 lines 16-35; col. 22 lines 6-14]

Mun teaches wherein said control means stops power supply to storage means not selected by said selecting means. [abstract; col. 1 lines 6-12, 42-67; col. 2 lines 28-43; col. 4 lines 36-48]

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the power supply teachings of Mun with the device of Fukuhara allowing access and operation of storage devices.

Conclusion

19.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANNER HOLDER whose telephone number is (571)270-1549. The examiner can normally be reached on M-W, M-W 8 am-3 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Ustaris can be reached on 571-272-7383. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anner Holder/

Examiner, Art Unit 2483